

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An image recognition apparatus comprising:

shooting means for shooting an object image to be discriminatively recognized and identified;

a plurality of attribute-classified image database means classified respectively in accordance with a plurality of attributes corresponding to various situations of the shooting performed by said shooting means, and storing therein at least one reference image[[s]] classified by the attributes and also storing recognition ID attached uniquely to the at least one reference image[[s]] respectively;

selection means for selecting, from the plurality of attribute-classified image database means, one image database means of the attribute corresponding to ~~the present situation of the~~ a face recognition presently recognized; and

object specifying means for specifying the recognition ID, which corresponds to the object image shot by said shooting means, with reference to the at least one reference image stored in the attribute-classified image database means selected by said selection means.

Claim 2 (Currently Amended): The image recognition apparatus according to claim 1, further comprising:

date-and-time count means for counting ~~the~~ a present date and time;

wherein said attribute-classified image database means are classified by attributes depending on ~~the~~ a time shot by said shooting means; and

wherein said selection means automatically selects, on ~~the~~ a basis of the present date and time counted by said date-and-time count means, one attribute-classified image database

means corresponding to the present date and time from said plurality of attribute-classified image database means.

Claim 3 (Currently Amended): The image recognition apparatus according to claim 1, further comprising:

position measuring means for measuring ~~the~~ a present position of an object,

wherein said attribute-classified image database means are classified by attributes depending on ~~the~~ a position shot by said shooting means; and

said selection means automatically selects, on ~~the~~ a basis of the present position measured by said position measuring means, one attribute-classified image database means corresponding to the present position from said plurality of attribute-classified image database means.

Claim 4 (Currently Amended): The image recognition apparatus according to claim 1, further comprising:

date-and-time count means for counting ~~the~~ a present date and time, and

position measuring means for measuring ~~the~~ a present position of an object;

wherein said attribute-classified image database means are classified by attributes depending on the time and the position shot by said shooting means; and

said selection means automatically selects, on ~~the~~ a basis of the present date and time counted by said date-and-time count means and also the present position measured by said position measuring means, one attribute-classified image database means corresponding to the present date and time and the present position from said plurality of attribute-classified image database means.

Claim 5 (Currently Amended): The image recognition apparatus according to claim 1, further comprising:

estimation means for estimating familiarity to the object image on ~~the~~ a basis of ~~the~~ an occupancy area ratio of the object image to ~~the~~ an entire region shot by said shooting means, or on ~~the~~ a basis of ~~the~~ a number of times of specifying the object image by said object specifying means in the past, or on ~~the~~ a basis of a combination of said occupancy area ratio and said number of times;

wherein said attribute-classified image database means are classified by attributes depending on ~~the~~ a familiarity to the object image estimated by said estimation means; and

said selection means automatically selects, on ~~the~~ a basis of the familiarity estimated by said estimation means, one attribute-classified image database means corresponding to the familiarity to the object image shot by said shooting means at present, from said plurality of attribute-classified image database means.

Claim 6 (Currently Amended): The image recognition apparatus according to claim 5, further comprising:

date-and-time count means for counting ~~the~~ a present date and time,

wherein said attribute-classified image database means are classified by attributes depending on ~~the~~ a familiarity to the object image estimated by said estimation means, and also by attributes depending on ~~the~~ a time shot by said shooting means; and

said selection means automatically selects, on ~~the~~ a basis of the familiarity estimated by said estimation means and the present date and time counted by said date-and-time count means, one attribute-classified image database means corresponding to the familiarity to the object image shot by said shooting means at present and also corresponding to the present date and time, from said plurality of attribute-classified image database means.

Claim 7 (Currently Amended): The image recognition apparatus according to claim 5, further comprising:

position measuring means for measuring ~~the~~ a present position of an object,

wherein said attribute-classified image database means are classified by attributes depending on ~~the~~ a familiarity to the object image estimated by said estimation means, and also by attributes depending on ~~the~~ a position shot by said shooting means;

and said selection means automatically selects, on ~~the~~ a basis of the familiarity estimated by said estimation means and the present position measured by said position measuring means, one attribute-classified image database means corresponding to the familiarity to the object image shot by said shooting means at present and also corresponding to the present position, from said plurality of attribute-classified image database means.

Claim 8 (Currently Amended): The image recognition apparatus according to claim 5, further comprising:

date-and-time count means for counting ~~the~~ a present date and time, and

position measuring means for measuring ~~the~~ a present position of an object;

wherein said attribute-classified image database means are classified by attributes depending on ~~the~~ a familiarity to the object image estimated by said estimation means, and also by attributes depending on the time and the position shot by said shooting means; and

said selection means automatically selects, on ~~the~~ a basis of the familiarity estimated by said estimation means, the present date and time counted by said date-and-time count means, and also the present position measured by said position measuring means, one attribute-classified image database means corresponding to the familiarity to the object image

shot by said shooting means at present, the present date and time, and also corresponding to the present position, from said plurality of attribute-classified image database means.

Claim 9 (Currently Amended): An image recognition processing method comprising:
a selection step of selecting one attribute-classified image database corresponding to ~~the~~ a present situation from a plurality of attribute-classified image databases classified respectively in accordance with a plurality of attributes corresponding to various situations of ~~the~~ a shooting performed by a shooting means in respect of an object image to be discriminatively recognized and identified, and storing therein at least one reference image[[s]] classified by the at least one attribute[[s]] and also storing recognition ID attached uniquely to the at least one reference image[[s]] respectively; and

an object specifying step of specifying the recognition ID, which corresponds to the object image shot by said shooting means, with reference to the at least one reference image stored in the attribute-classified image database selected at said selection step.

Claim 10 (Currently Amended): The image recognition processing method according to claim 9, further comprising:

a date-and-time count step of counting ~~the~~ a present date and time;
wherein said attribute-classified image databases are classified by attributes depending on ~~the~~ a time shot by said shooting means; and at said selection step, one attribute-classified image database corresponding to the present date and time is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the present date and time counted at said date-and-time count step.

Claim 11 (Currently Amended): The image recognition processing method according to claim 9, further comprising:

a position measuring step of measuring ~~the~~ a present position of an object,
wherein said attribute-classified image databases are classified by attributes depending on ~~the~~ a position shot by said shooting means; and at said selection step, one attribute-classified image database corresponding to the present position is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the present position measured at said position measuring step.

Claim 12 (Currently Amended): The image recognition processing method according to claim 9, further comprising:

a date-and-time count step of counting ~~the~~ a present date and time, and a position measuring step of measuring ~~the~~ a present position of an object;

wherein said attribute-classified image databases are classified by attributes depending on the time and ~~the~~ a position shot by said shooting means; and at said selection step, one attribute-classified image database corresponding to the present date and time and the present position is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the present date and time counted by said date-and-time count step and also the present position measured by said position measuring step.

Claim 13 (Currently Amended): The image recognition processing method according to claim 9, further comprising:

an estimation step of estimating familiarity to the object image on ~~the~~ a basis of ~~the~~ a occupancy area ratio of the object image to ~~the~~ an entire region shot by said shooting means, or on ~~the~~ a basis of ~~the~~ a number of times of specifying the object image at said object

specifying step in the past, or on ~~the~~ a basis of a combination of said occupancy area ratio and said number of times;

wherein said attribute-classified image databases are classified by attributes depending on the familiarity to the object image estimated at said estimation step; and at said selection step, one attribute-classified image database corresponding to the familiarity to the object image shot by said shooting means at present is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the familiarity estimated by said estimation means.

Claim 14 (Currently Amended): The image recognition processing method according to claim 13, further comprising:

a date-and-time count step of counting ~~the~~ a present date and time,

wherein said attribute-classified image databases are classified by attributes depending on the familiarity to the object image estimated by said estimation means, and also by attributes depending on ~~the~~ a time shot by said shooting means; and at said selection step, one attribute-classified image database, which corresponds to the familiarity to the object image shot by said shooting means at present and also corresponds to the present date and time, is selected automatically from said plurality of attribute-classified databases on ~~the~~ a basis of the familiarity estimated at said estimation step and the present date and time counted at said date-and-time count step.

Claim 15 (Currently Amended): The image recognition processing method according to claim 13, further comprising:

a position measuring step of measuring ~~the~~ a present position of an object,

wherein said attribute-classified image databases are classified by attributes depending on the familiarity to the object image estimated at by said estimation step, and also by attributes depending on the position shot by said shooting means; and at said selection step, one attribute-classified image database, which corresponds to the familiarity to the object image shot by said shooting means at present and also corresponds to the present position, is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the familiarity estimated at said estimation step and the present position measured at said position measuring step.

Claim 16 (Currently Amended): The image recognition processing method according to claim 13, further comprising:

a date-and-time count step of counting ~~the~~ a present date and time, and

a position measuring step of measuring the present position;

wherein said attribute-classified image databases are classified by attributes depending on the familiarity to the object image estimated by said estimation means, and also by attributes depending on ~~the~~ a time and ~~the~~ a position shot by said shooting means; and at said selection step, one attribute-classified image database, which corresponds to the familiarity to the object image shot by said shooting means at present, the present date and time, and also corresponds to the present position, is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the familiarity estimated at said estimation step, the present date and time counted at said date-and-time count step, and also the present position measured at said position measuring step.

Claim 17 (Currently Amended): ~~An image recognition program comprising:~~ A computer readable medium encoded with a computer program configured to cause an information processing apparatus to execute a method, the method comprising:

a selection step of selecting one attribute-classified image database corresponding to ~~the~~ a present situation from a plurality of attribute-classified image databases specified respectively in accordance with a plurality of attributes corresponding to various situations of ~~[[the]]~~ a shooting performed by a shooting means in respect of an object image to be discriminatively recognized and identified, and storing therein at least one reference image~~[[s]]~~ classified by the attributes and also storing recognition ID attached uniquely to the at least one reference image~~[[s]]~~ respectively; and

an object specifying step of specifying the recognition ID, which corresponds to the object image shot by said shooting means, with reference to the at least one reference image stored in the attribute-classified image database selected at said selection step.

Claim 18 (Currently Amended): The image recognition program according to claim 17, further comprising:

a date-and-time count step of counting ~~the~~ a present date and time;

wherein said attribute-classified image databases are classified by attributes depending on ~~the~~ a time shot by said shooting means; and at said selection step, one attribute-classified image database corresponding to the present date and time is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the present date and time counted at said date-and-time count step.

Claim 19 (Currently Amended): The image recognition program according to claim 17, further comprising:

a position measuring step of measuring ~~the~~ a present position of an object,
wherein said attribute-classified image databases are classified by attributes depending on ~~the~~ a position shot by said shooting means; and at said selection step, one attribute-classified image database corresponding to ~~the~~ a present position is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the present position measured at said position measuring step.

Claim 20 (Currently Amended): The image recognition program according to claim 17, further comprising:

a date-and-time count step of counting ~~the~~ a present date and time, and a position measuring step of measuring ~~the~~ a present position of an object;

wherein said attribute-classified image databases are classified by attributes depending on ~~the~~ a time and ~~the~~ a position shot by said shooting means; and at said selection step, one attribute-classified image database corresponding to the present date and time and the present position is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the present date and time counted by said date-and-time count means and also the present position measured by said position measuring means.

Claim 21 (Currently Amended): The image recognition program according to claim 17, further comprising:

an estimation step of estimating a familiarity to the object image on ~~the~~ a basis of ~~the~~ an occupancy area ratio of the object image to ~~the~~ an entire region shot by said shooting means, or on ~~the~~ a basis of ~~the~~ a number of times of specifying the object image at said object specifying step in the past, or on ~~the~~ a basis of a combination of said occupancy area ratio and said number of times;

wherein said attribute-classified image databases are classified by attributes depending on the familiarity to the object image estimated at said estimation step; and at said selection step, one attribute-classified image database corresponding to the familiarity to the object image shot by said shooting means at present is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the familiarity estimated by said estimation means.

Claim 22 (Currently Amended): The image recognition program according to claim 21, further comprising:

a date-and-time count step of counting ~~the~~ a present date and time,

wherein said attribute-classified image databases are classified by attributes depending on the familiarity to the object image estimated by said estimation means, and also by attributes depending on ~~the~~ a time shot by said shooting means; and at said selection step, one attribute-classified image database, which corresponds to the familiarity to the object image shot by said shooting means at present and also corresponds to the present date and time, is selected automatically from said plurality of attribute-classified databases on ~~the~~ a basis of the familiarity estimated at said estimation step and the present date and time counted at said date-and-time count step.

Claim 23 (Currently Amended): The image recognition program according to claim 21, further comprising:

a position measuring step of measuring ~~the~~ a present position of an object,

wherein said attribute-classified image databases are classified by attributes depending on the familiarity to the object image estimated at by said estimation step, and also by attributes depending on the position shot by said shooting means; and at said selection

step, one attribute-classified image database, which corresponds to the familiarity to the object image shot by said shooting means at present and also corresponds to the present position, is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the familiarity estimated at said estimation step and the present position measured at said position measuring step.

Claim 24 (Currently Amended): The image recognition processing method according to claim 21, further comprising:

a date-and-time count step of counting ~~the~~ a present date and time, and

a position measuring step of measuring ~~the~~ a present position of an object;

wherein said attribute-classified image databases are classified by attributes depending on ~~the~~ a familiarity to the object image estimated by said estimation means, and also by attributes depending on ~~the~~ a time and ~~the~~ a position shot by said shooting means; and at said selection step, one attribute-classified image database, which corresponds to the familiarity to the object image shot by said shooting means at present, the present date and time, and also corresponds to the present position, is selected automatically from said plurality of attribute-classified image databases on ~~the~~ a basis of the familiarity estimated at said estimation step, the present date and time counted at said date-and-time count step, and also the present position measured at said position measuring step.

Claim 25 (New): An image recognition apparatus comprising:

an image capture device configured to capture an object image to be discriminatively recognized and identified;

a plurality of attribute-classified image storage devices configured to store classified respectively in accordance with a plurality of attributes corresponding to various situations of

the image capture devices, and storing therein at least one reference image classified by the attributes and also storing recognition ID attached uniquely to the at least one reference image respectively;

a selector configured to select, from the plurality of attribute-classified image storage devices, one image storage device of the attribute corresponding to a face recognition presently recognized; and

an object specifying device configured to specify the recognition ID, which corresponds to the object image captured by said capture device, with reference to the at least one reference image stored in the attribute-classified image storage device selected by said selector.